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No. 126

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In The

Supreme Court of the United States

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STATE OF KANSAS,

Plaintiff,

٧.

STATE OF NEBRASKA

and

STATE OF COLORADO,

Defendants.

*

BEFORE THE OFFICE OF THE SPECIAL MASTER

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Quality Inn
Taken at 1400 Southeast Bishop Boulevard
Pullman, Washington
Thursday, February 9, 2012 - 10:44 a.m.

DEPOSITION

OF

MARVIN HENRY ROBISON, Ph.D.

APPEARANCES

JOHN B. DRAPER and DONNA ORMEROD, Esqs., of the law firm of Montgomery and Andrews, 325 Paseo de Peralta, Post Office Box 2307, Santa Fe, New Mexico 875012307, appearing on behalf of the Plaintiff State of Kansas.

CHRISTOPHER M. GRUNEWALD, Esq., Civil Litigation Division, the Office of the Attorney General for the State of Kansas, 120 Southwest Tenth Avenue, Second Floor, Topeka, Kansas 66612-1597, appearing on behalf of the Plaintiff State of Kansas.

TOM WILMOTH and DON BLAKENAU, Esqs., of the law firm of Blakenau Wilmoth, LLP, 206 South Thirteenth Street, Suite 1425, Lincoln, Nebraska 68508, appearing on behalf of the Defendant State of Nebraska.

JUSTIN D. LAVENE, Esq., Section Chief, Agriculture, Environment, and Natural Resources, of the Office of the Attorney General for the State of Nebraska, 2115 State Capitol, Lincoln, Nebraska 68509-8920, appearing on behalf of the Defendant State of Nebraska.

PETER J. AMPE, Esq., of the law firm of Office of the Attorney General for the State of Colorado, 1525 Sherman Street, Seventh Floor, Denver, Colorado 80203, appearing on behalf of the Defendant State of Colorado.

ALSO PRESENT: M. Henry Robison, Ph.D., and others.

1	I N D E X WITNESS: PAGE:			
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10	EXHIBITS MARKED FOR IDENTIFICATION:			
11	Deposition Exhibit No. 1 - Copy of notice of			
12	deposition			
13 14	Deposition Exhibit No. 2 - Copy of Dr. Robison's CV6			
15	Deposition Exhibit No. 3 - Copy of Economic Analysis of Kansas Losses from Overuse			
16	of Republican River Water by Nebraska in 2005 and 2006 16			
17	Deposition Exhibit No. 4 - Copy Non-Binding Arbitration Initiated 10.21.08			
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22				
23	Paparted by Claria I MaDayaall CCD DDD			
24	Reported by Gloria J. McDougall, CSR, RPR, CP, Freelance Court Reporter and Notary Public, within and for the States of Idaho and Washington, residing in			
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1	STIPULATIONS
2	It was stipulated by and between Counsel for
3	the respective parties that the deposition be taken by
4	Gloria J. McDougall, CSR, RPR, CP, Freelance Court
5	Reporter and Notary Public for the States of Idaho and
6	Washington, residing in Clarkston, Washington.
7	
8	It was further stipulated and agreed by and
9	between Counsel for the respective parties and the
10	witness that the reading and signing of the deposition
11	would be expressly reserved.
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- 1 THURSDAY, FEBRUARY 9, 2012 10:44 A.M.
- 2 Thereupon,
- 3 MARVIN HENRY ROBISON, Ph.D.,
- 4 a witness of lawful age, having first been duly sworn
- 5 upon his oath to tell the truth, the whole truth and
- 6 nothing but the truth, testified as follows:
- 7 EXAMINATION
- 8 BY MR. WILMOTH:
- 9 Q. Good morning, Dr. Robison. Am I pronouncing
- 10 your name correctly?
- 11 A. Yes.
- 12 Q. Could you state and spell your full name?
- 13 A. It's Marvin, M-A-R-V-I-N; Henry, H-E-N-R-Y;
- 14 Robison, R-O-B-I-S-O-N.
- 15 Q. Thank you. And Doctor, you were present
- 16 throughout the entire deposition testimony of your
- 17 colleague, Dr. Hamilton; were you not?
- 18 A. Yes, I was.
- 19 Q. And you heard his testimony in total?
- 20 A. Most of it. I was looking at other things at
- 21 times.
- 22 Q. Fair enough. You're aware that Dr. Hamilton
- 23 identified you as having performed certain activities in
- 24 relation to the two reports in question during his
- 25 depositions, which were Exhibits 3 and 4 to his

- 1 deposition?
- 2 A. Yes. Three and four were our experts report.
- 3 Q. That's correct. And for purposes of the
- 4 present deposition, I will provide copies of those and
- 5 we will make those exhibits, also. For the sake of
- 6 continuity, what I would like to do is provide you with
- 7 a copy the notice of deposition and your CV, which will
- 8 be Exhibits 1 and 2, respectively.
- 9 EXHIBITS:
- 10 (Deposition Exhibit Nos. 1 and 2 marked for
- 11 identification.)
- 12 (Whereupon, Dr. Robison is handed Exhibits 1
- 13 and 2.
- 14 Q. (BY MR. WILMOTH) Doctor, do you have a copy of
- 15 the notice of deposition in front of you?
- 16 A. Yes.
- 17 Q. Have you seen this document before?
- 18 A. Yes.
- 19 Q. Very well. And the document asks, if you would
- 20 be so kind as to bring any materials supplemental to
- 21 those of your report. Did you do so today?
- 22 A. No.
- 23 Q. Thank you. And we've also provided you a copy
- 24 of your CV?
- 25 A. Yes.

- 1 Q. Is that an accurate and complete copy?
- A. Yes.
- 3 Q. Thank you. So, again, we will mark those as
- 4 Exhibits 1 and 2, respectively. Is your complete
- 5 education background set forth on your CV?
- 6 A. Yes.
- 7 Q. And is your complete professional background
- 8 set forth on your CV?
- 9 A. Yes, a summary.
- 10 Q. Are there any areas of your educational or
- 11 professional background you'd like to elaborate on
- 12 today?
- 13 A. No.
- 14 Q. I note in the biography that the Regional
- 15 Science Association International recently listed you as
- 16 one of the intellectual leaders of regional science for
- 17 the 1990s. What is that journal?
- 18 A. That is, as it's identified there, it's the
- 19 Journal of the Regional Science Association
- 20 International. That particular article was completed in
- 21 the early 2000s, 2004, by one of the prominent names in
- 22 the field, Andrew Isserman, and it was a citation
- 23 survey, where they were -- Dr. Isserman was going
- 24 through and looking at Journals of Regional Science and
- 25 then ranking the authors according to the number of

- 1 times their articles were cited.
- 2 Q. Ah.
- 3 A. So the idea was, it was -- it's not simply
- 4 enough -- and this is Isserman talking in the article --
- 5 it wasn't simply a matter of getting published, it was a
- 6 matter of publishing things that other people read and
- 7 cited.
- 8 Q. I see. So, a statistical analysis of how many
- 9 times your work had been relied upon, for example?
- 10 A. Yes. During the -- during the decade --
- 11 Q. Period?
- 12 A. -- of the 90s.
- 13 Q. 1990s, sure.
- 14 A. Yes.
- 15 Q. And is that representative of your recent work,
- 16 do you think?
- 17 A. Since the 90s, I've mainly focused on
- 18 consulting and building a business.
- 19 Q. I see. So you haven't generated, perhaps, as
- 20 many papers, I suppose?
- 21 A. That's correct.
- 22 Q. What is the nature of the business you've been
- 23 building since the 90s?
- 24 A. It's Economic Modeling Specialists, Inc.
- 25 Q. Is that EMSI?

- 1 A. Yes, EMSI. And that's actually my company's
- 2 name going back to the mid '90s or is mainly a one-man
- 3 shop. And then, beginning of 2000, I teamed up with a
- 4 couple of other people, one more of a manager type, the
- 5 other a fellow economist, and we did work looking at the
- 6 economic impact of education and we grew that into a
- 7 business where currently we employ about fifty people
- 8 and the company recently sold, so I'm no longer strictly
- 9 an owner.
- 10 Q. You hope you cashed out?
- 11 A. Didn't get as much as I would've liked to, but
- 12 we probably never do.
- 13 Q. Well, the American public appreciates your job
- 14 creation over the last decade. Who are EMSI's biggest
- 15 clients these days?
- 16 A. Well, there'd be workforce investment boards,
- 17 community colleges, universities. We have clients in
- 18 the UK. We build a subscription tool, it's called the
- 19 Adolescent, and it's probably mainly workforce
- 20 investment boards, economic development agencies. I'm
- 21 no longer in -- have anything to do with sales or
- 22 marketing, so I'm not the best to ask those questions.
- 23 Q. How much work has the EMSI done for the State
- 24 of Kansas?
- 25 A. We've probably done the community colleges

- 1 there. To my knowledge, that's all.
- 2 Q. Is this your first involvement with the State
- 3 of Kansas then, the present litigation?
- 4 A. No. I was involved in the Ark River case.
- 5 Q. And how did the role you served in that case
- 6 compare to the role you served in this case?
- 7 A. I think it would be fair to call it a parallel
- 8 role.
- 9 Q. Do you have any other clients, for whom you are
- 10 performing similar work, in terms of calculating damages
- 11 in litigation?
- 12 A. No.
- 13 Q. Have you had any such clients since the
- 14 Arkansas River case?
- 15 A. No. The only -- the only case we had, a local
- 16 attorney in Moscow had a wrongful injury case where I
- 17 and some -- a couple of economists on staff went through
- 18 and wrote a little memo, estimating his lost future
- 19 income.
- 20 Q. That would not have involved any secondary
- 21 impact analysis though, would it?
- 22 A. No.
- 23 Q. Okay. So in terms of litigation support, is
- 24 your experience limited to the Arkansas River case and
- 25 this case?

- 1 A. And the Pecos River case.
- 2 Q. And the Pecos River case. And could you
- 3 explain the relationship of your role there to your
- 4 relationship in the Arkansas and Republican River cases?
- 5 A. The Pecos River, I think was -- it would be
- 6 fair to say it was more limited, because it settled,
- 7 prior to going to court, and it was more conceptual. We
- 8 never got to the point of actually building models. I
- 9 think that would be a fair characterization.
- 10 Q. So, you didn't do any actual modeling in that
- 11 case?
- 12 A. No.
- 13 Q. Doctor, I would like to hand you a copy of an
- 14 article that we talked about a little bit with Dr.
- 15 Hamilton yesterday. Do you recognize this article?
- 16 A. I do.
- 17 Q. And I'd direct your attention to page six
- 18 ninety-five of the article. You may recall we had a
- 19 discussion with Dr. Hamilton, in which he highlighted
- 20 what he called some rigidities in the IMPLAN model?
- 21 MR. DRAPER: Tom, what page did you --
- 22 MR. WILMOTH: Six nine five.
- 23 MR. DRAPER: Thank you.
- 24 Q. (BY MR. WILMOTH) Were you present for that
- 25 discussion?

- 1 A. Yes, I was.
- 2 Q. This article indicates that the IMPLAN model is
- 3 not the only choice or even the best choice for
- 4 assessing secondary impacts in some cases. I'm
- 5 wondering if you could elaborate on your view of when
- 6 IMPLAN is an appropriate choice and not an appropriate
- 7 choice?
- 8 A. I think of it's a situation where there might
- 9 significant price effects, then IMPLAN might be used
- 10 with some caution. So, if you're talking about a
- 11 situation like, you know, a deep freeze in Florida's
- 12 citrus groves, where the price of orange juice is going
- 13 to go up or if there's a case where you're going to have
- 14 a significant affect on land values or something that
- 15 may alter the coefficients that are in IMPLAN, then it
- 16 could be inappropriate.
- 17 Q. In the present case, you don't believe that's a
- 18 concern; is that right?
- 19 A. No.
- 20 Q. Why not?
- A. The crops we're talking about here, the prices
- 22 are determined in really -- you know, the world markets.
- 23 In economic theory, these are, you know, the farmers are
- 24 -- it's a classic case of being price takers, not price
- 25 makers.

- 1 MR. WILMOTH: I feel like that describes my
- 2 life quite a bit. Let's turn a phrase.
- 3 Q. (BY MR. WILMOTH) You heard Dr. Hamilton's
- 4 discussion of these rigidities in the IMPLAN model. Do
- 5 you share that view?
- 6 A. I'm not sure I remember exactly the context.
- 7 Q. Do you believe, that the IMPLAN model contains
- 8 any such rigidities?
- 9 A. I believe the rigidities Professor Hamilton was
- 10 referring to were probably the fixed coefficients that
- 11 are standard with those types of regional input-output
- 12 models.
- 13 Q. Do you believe that that -- those rigidities
- 14 played any role in the instant analysis?
- 15 A. No. Because of my previous comment on being
- 16 price takers. These were -- these were not massive
- 17 changes in an area where you had a -- you know, a major
- 18 supplier. You know, if the only place that milo was
- 19 grown was in the Republican River Basin, then there
- 20 could've been some affect on prices, but they're price
- 21 takers.
- 22 Q. I infer from the comment in the article that
- 23 there are some other models out there. I asked Dr.
- 24 Hamilton yesterday about the -- what's called the RIMS
- 25 II model. Are you familiar with that model?

- 1 A. Yes.
- 2 Q. Would you explain how that model functions?
- 3 A. The RIMS model -- the RIMS II model is, in
- 4 terms of a family of models, it's in the same family as
- 5 IMPLAN. It's a fixed coefficient input-output model.
- 6 It's a model available by the Department of Commerce and
- 7 it's -- commerce has offered the model for years,
- 8 perhaps twenty years. It started as RIMS and then it
- 9 became RIMS II. It's -- with all respect to the US
- 10 Department of Commerce, it's usually viewed as -- by
- 11 practitioners as sort of the bottom of the line model.
- 12 Q. Good enough for government work, so to speak?
- 13 A. Perhaps.
- 14 Q. Can you just tell me generally, in your view,
- 15 what the relative advantages or disadvantages, as the
- 16 case may be, are in employing RIMS II?
- 17 A. I think the only advantage would be the price.
- 18 It's cheap.
- 19 Q. Are you familiar with something called the REMI
- 20 model?
- 21 A. Yes.
- 22 Q. Could you explain the nature of that model, how
- 23 it functions?
- A. I'm not a -- I can't claim to be an expert on
- 25 REMI. It has embedded in it an input-output model,

- 1 that's part of it. But then REMI has feedback loops.
- 2 It's not a simultaneous model, like a computable general
- 3 equilibrium model. But it has feedback loops where you
- 4 will again have price changes, will lead to population
- 5 changes and in migration of labor and the out migration
- 6 of labor. You know, fiscal effects. It's -- it's more
- 7 of a -- kind of a one-off custom model.
- 8 Q. I see. So, if the RIMS II is the Chevy Impala,
- 9 is the REMI the Cadillac of models?
- 10 A. I think some people would view it that way,
- 11 even though, again, in a case like this, where you're
- 12 not -- we wouldn't expect there to be tremendous price
- 13 effects. Where we're looking at price takers, I think
- 14 the REMI model would be -- I don't think it would be
- 15 appropriate.
- 16 Q. Does it have any inherent advantages or
- 17 disadvantages....over the IMPLAN model say?
- 18 A. Not -- I would say not in a situation like we
- 19 were analyzing in the current case.
- 20 Q. How about other situations?
- 21 A. If you were -- if you were looking at a
- 22 situation, again, where you're expecting large price
- 23 effects, you were looking at substantial migration, you
- 24 know, real estate effects, then the REMI might be a
- 25 model of choice.

- 1 Q. And these feedback loops are, if I understand,
- 2 utilized to capture those influences?
- 3 A. Yes.
- 4 Q. Is there any kind of temporal consideration
- 5 given to whether to apply a REMI model?
- 6 A. I'm not sure. I really haven't had a lot of
- 7 experience with REMI.
- 8 Q. Doctor, I would like to hand you the Kansas
- 9 losses report, which we will mark as Exhibit 3.
- 10 EXHIBITS:
- 11 (Deposition Exhibit No. 3 marked for
- 12 identification.)
- 13 Q. (BY MR. WILMOTH) Doctor, is that copy of your
- 14 report?
- 15 A. Yes, it is.
- 16 Q. Could you direct your attention to page KS 557
- 17 on the bottom there?
- 18 A. (Witness complies.)
- 19 Q. There's a discussion of a term of art there or
- 20 a couple of terms, secondary direct and indirect
- 21 impacts. Do you see that reference?
- 22 A. Yes.
- 23 Q. I spoke to Dr. Hamilton yesterday a little bit
- 24 about that, and I had asked him in what other cases that
- 25 concept typically applies. Could you elaborate on your

- 1 view of that -- the answer to that question?
- 2 A. I would say it applies in the practice of
- 3 economic impact analysis, whenever that's an issue.
- 4 Q. Is it typically an issue in all economic
- 5 analysis or is it limited to a broad scale impact?
- 6 A. If you're looking at regional economic impacts,
- 7 that's the issue. To not include secondary effects
- 8 would be -- I think that would be incorrect.
- 9 Q. And why is that?
- 10 A. Because they're clearly part of the -- part of
- 11 the impact. You have the primary, that usually is
- 12 something that doesn't require theory. That's something
- 13 that's given. You know, in this case, we're talking
- 14 about, you know, a lack of water in Kansas or more water
- 15 in Nebraska, and then that's -- that requires no theory.
- 16 That's given.
- 17 Q. So, some kind of an event like a -- Dell is
- 18 going to come in and build a computer processing plant
- 19 or something like that?
- 20 A. Yes.
- 21 Q. And then you want to know, on a regional basis,
- 22 how that investment and the project would ripple through
- 23 the economy, is that generally the idea?
- 24 A. Yes.
- 25 Q. So, typically are these analyses are conducted

- 1 to determine or project impacts of proposed projects or
- 2 future events?
- 3 A. That would be part of the use of them.
- 4 Q. I asked Dr. Hamilton yesterday about this
- 5 concept of what I think economists call "linkage," and
- 6 there's a reference in the report there, stating that
- 7 the effects associated with the purchase of imported
- 8 inputs occurred in the states hosting their production.
- 9 Do you see that? It's under that same term.
- 10 MR. DRAPER: We're on page five five seven,
- 11 Bates number?
- MR. WILMOTH: Yeah. It's right under the term,
- 13 secondary indirect impact.
- 14 MR. DRAPER: I'm sorry. I'm not seeing the
- 15 words, "secondary impacts," in the heading.
- 16 MR. WILMOTH: Okay.
- 17 MR. DRAPER: I see secondary losses, is that
- 18 what --
- 19 MR. WILMOTH: Secondary losses. I'm sorry.
- 20 MR. DRAPER: Now, on the next page there is a
- 21 subheading, secondary direct and indirect impacts, on
- 22 page five five eight.
- 23 MR. WILMOTH: Yes, I'm sorry.
- MR. DRAPER: And it's under that heading?
- 25 MR. WILMOTH: Yes.

- 1 MR. DRAPER: And the particular place under the
- 2 heading, again?
- 3 MR. WILMOTH: It's the last sentence of the
- 4 first paragraph.
- 5 MR. DRAPER: The one that says, The effects
- 6 associated with the purchase of imported input -- inputs
- 7 occurred in the states hosting their productions?
- 8 MR. WILMOTH: Yes.
- 9 Q. (BY MR. WILMOTH) Do you see that sentence,
- 10 Doctor?
- 11 A. Yes.
- 12 Q. What does that mean?
- 13 A. That means in the supply chain, which is the
- 14 generator of the direct and indirect secondary impacts,
- 15 if that supply chain, to the extent it leaks out of
- 16 state, those impacts occur in those other states.
- 17 Q. So, if a farmer in Kansas purchases a tractor
- 18 from a Nebraska vendor, the -- is that a leakage? That
- 19 impact occurs in Nebraska, is that the concept?
- 20 A. Yeah. Accepting the premise of your -- your
- 21 statement, that would be true.
- 22 Q. Did you conduct any analysis to determine the
- 23 extent to which the inputs in your analysis were from
- 24 Nebraska?
- 25 A. No.

- 1 Q. Let me turn you to page five fifty-nine to the
- 2 discussion entitled Constructing a Secondary Effects
- 3 Model. Do you see that....at the very top?
- 4 A. Oh, yes.
- 5 Q. I understand, from speaking with Dr. Hamilton,
- 6 that you were primarily responsible for this portion of
- 7 the report; is that correct?
- 8 A. That's correct.
- 9 Q. Is the selection of the IMPLAN model your
- 10 responsibility?
- 11 A. Yes, it was.
- 12 Q. And why did you select the IMPLAN model in this
- 13 particular case?
- 14 A. The IMPLAN model is particularly accepted in
- 15 the agricultural economics community. Ag economists use
- 16 it widely, and we used it in our other study of the Ark
- 17 River.
- 18 Q. Do you feel that it has any particular benefits
- 19 that make it particularly applicable in an agricultural
- 20 setting?
- 21 A. I think the -- the fact that it's widely
- 22 recognized --
- 23 Q. Okay.
- A. -- by Ag economists.
- Q. And if I understand correctly, the IMPLAN model

- 1 essentially is a regional input-output model; is that
- 2 right?
- 3 A. That's correct.
- 4 Q. And what is the scope of the region that you
- 5 employed in this case?
- 6 A. Kansas and Nebraska. We built two separate
- 7 models.
- 8 Q. Okay. With regard to this report that we are
- 9 looking at right now, was that region limited to the
- 10 State of Kansas?
- 11 A. Yes.
- 12 Q. And it was a statewide model; is that right?
- 13 A. That's correct.
- 14 Q. So, does that mean that it essentially
- 15 incorporated all the counties in the state of --
- 16 A. That's correct.
- 17 Q. But it did not incorporate any counties in the
- 18 State of Nebraska?
- 19 A. No.
- 20 Q. How did you determine that that was the
- 21 appropriate region for your analysis?
- A. We relied their -- on the work of the BEA and
- 23 the PA economic areas.
- 24 Q. I see.
- A. Which I believe goes back to 1969.

- 1 Q. So, in that regard, you may recall I had a
- 2 discussion with Dr. Hamilton about interregional
- 3 spillover, and I think that's where the BEA region
- 4 discussion arose.
- 5 A. Yes.
- 6 Q. Do you recall that discussion?
- 7 A. Yes.
- 8 Q. Am I understanding you to say that,
- 9 essentially, the selection was made on the basis that
- 10 the BEA regions were divided at the state line?
- 11 A. Yes.
- 12 Q. Okay. If I understand your analysis, you
- 13 estimated the effects for both 2005 and 2006, using an
- 14 IMPLAN model for 2006; is that right?
- 15 A. That's correct.
- 16 Q. Are there any shortcomings of that approach?
- 17 Why lump the two years together?
- 18 A. That was a -- ideally, we would have built a
- 19 model for 2005 and a model for 2006, but IMPLAN produced
- 20 no data for 2005.
- 21 Q. Why was that?
- A. The government sources from which they get
- 23 their data, Department of Labor, Department of Commerce,
- 24 they have speeded up the availability of the data. So
- 25 formerly, they would -- IMPLAN data would be -- the

- 1 newest data would be a couple of years old. I'm just
- 2 guessing two or three years old.
- 3 Q. Sure.
- 4 A. And suddenly one year they made it available
- 5 practically a year early, so rather than build the 2005
- 6 data, they just -- they were able to build 2006 data and
- 7 release it at the same time they would've released 2005,
- 8 so they just produced no 2005 data.
- 9 Q. I see.
- 10 A. So, we were obliged to assume 2006 applied.
- 11 Q. And if I understand correctly, you assumed that
- 12 the input and output multipliers exhibit a general
- 13 stability across those two years?
- 14 A. Yes.
- 15 Q. Did you have a further basis for making that
- 16 assumption, or were you just constrained by the data
- 17 available?
- 18 A. We were -- we were constrained by the data.
- 19 There is a -- there is literature that indicates some
- 20 stability in input-output coefficients through time.
- 21 Q. From year to year?
- 22 A. Yes.
- 23 Q. Can you, off the top of your head, provide me
- 24 with any titles or authors we might investigate in that
- 25 regard?

- 1 A. You can look it up in Ron Miller and Peter
- 2 Blair's textbook, Input-Output Analysis Foundations and
- 3 Extensions, and I believe that's a second edition, 2009
- 4 or 2008.
- 5 MR. WILMOTH: I think I saw a copy of that at
- 6 Rico's last night.
- 7 MR. ROBISON: It wouldn't have been the new
- 8 one.
- 9 MR. WILMOTH: Heck of a library over there.
- 10 MR. ROBISON: Yeah. They're all pretty old.
- 11 Q. (BY MR. WILMOTH) Would it be possible to
- 12 obtain the actual data from any other source, other than
- 13 IMPLAN and I guess, is it MIG, the author of IMPLAN?
- 14 A. Yes. My company builds input-output models.
- 15 Q. Were you ever asked to do so in this case?
- 16 A. No.
- 17 Q. Do you think you could've done so in this case,
- 18 if you were asked? For 2005, now.
- 19 A. We could've.
- 20 Q. You indicated that there was some stability
- 21 across these years. Are there factors that would
- 22 influence that stability, in some periods might make it
- 23 more stable or less stable?
- 24 A. I can't think of any.
- 25 Q. Turning the page to five sixty.

- 1 A. (Witness complies.)
- 2 Q. We have a heading at the top there, Calculating
- 3 Secondary Impact Stemming From Changes in Farm Input
- 4 Spending, do you see that?
- 5 A. Yes.
- 6 Q. Do I understand that this analysis is primarily
- 7 based on figures in Table 44? In other words, those
- 8 figures are a bit of a jumping-off point for your
- 9 analysis?
- 10 A. Yes, they are.
- 11 Q. And if any of these figures was incorrect,
- 12 would it affect your analysis?
- 13 A. Yes, it would.
- 14 Q. You did not account for the reemployment of
- 15 production inputs in this discussion here on page five
- 16 sixty, did you?
- 17 A. Could you elaborate on the question?
- 18 Q. As I understand it, from your discussion on
- 19 five sixty, you didn't account for the reemployment of
- 20 the production inputs, did you? I'm sorry I don't have
- 21 the exact language here.
- 22 A. By "reemployment," can you give me an example
- 23 of what you mean by that?
- 24 Q. Well, how did you treat the production inputs?
- A. Referring back to Table 44, we have a change in

- 1 the various production inputs. These would be
- 2 reductions, except where they're negatives, those would
- 3 actually be increases, these are changes from what they
- 4 would have been, and then those were fed into the
- 5 input-output model. They were fed into the industries
- 6 of the input-output model.
- 7 Q. Uh-huh. But you didn't assume that, for
- 8 example, between 2005 and 2006, the farmers in KBID
- 9 would do something different? They would just, in other
- 10 words, kind of sit back and take the water shortage?
- 11 A. No. I think any -- any assumptions regarding
- 12 the behavior of farmers would be upstream, as it were,
- 13 from my analysis.
- 14 Q. I see. Okay. So, when -- when we're talking
- 15 about the Supalla's work, for example, on page five
- 16 sixty-two and five sixty-three --
- 17 A. Yes.
- 18 Q. You did not consider the extent to which KBID
- 19 farmers might have elected to do something differently
- 20 between 2005 and 2006?
- 21 A. No. We accepted -- we accepted the perspective
- 22 of Professor Supalla here, that the time period was too
- 23 brief for inputs to be widely reemployed.
- 24 Q. But doesn't even Supalla recognize that there's
- 25 some linear reduction from year one and year two and

- 1 that multi-year event?
- 2 A. It's not -- it's not clear to me, from reading
- 3 his statement here and these -- these years were
- 4 independent, as I understand it.
- 5 Q. What do you mean by that?
- 6 A. They were unanticipatable (sic), if there's
- 7 such a word, by the farmers that were involved.
- 8 Q. In both years?
- 9 A. In both years.
- 10 Q. I see. If that event could have been
- 11 anticipated, would it change your perspective at all?
- 12 A. I would have to give that further thought.
- 13 Q. Are there -- aside from just the labor, for
- 14 example, are there any other inputs that might have been
- 15 reemployed, such as fertilizer or equipment between --
- 16 from one year to the next?
- 17 A. I would have to say -- I would have to say, no,
- 18 on that. If a -- if a fertilizer seller doesn't sell
- 19 his fertilizer, he -- he or she can't, you know, go out
- 20 and offer it as a substitution for something else.
- 21 Q. Couldn't he sell it outside the marketplace.
- 22 For example, a supplier in Salinas could offer it to a
- 23 producer outside of the KBID area, could he not?
- A. Now, we're talking -- the only way they'd would
- 25 be able to do that, it would seem to me, would be able

- 1 to either lower the price and go through advertising and
- 2 -- you know, I think on a -- I think with the relatively
- 3 small effects we're talking about here -- relatively
- 4 small effects, I don't think it's -- in my opinion, I
- 5 don't think it's unreasonable to assume that those --
- 6 those lost sales are just lost.
- 7 Q. But there could be some increment that is
- 8 reemployed; is that right?
- 9 A. Yeah. I wouldn't have an opinion on that.
- 10 Q. At the end of this section, in the middle of
- 11 page five sixty-three, I believe the ultimate conclusion
- 12 is that the Kansas GSP was roughly two-and-a-half
- 13 million smaller than it would have been if Nebraska had
- 14 met the requirements of the decree; do you see that?
- MR. DRAPER: Where's that on the page?
- 16 MR. WILMOTH: Right above the next heading.
- 17 Right in the dead center of the page.
- 18 MR. DRAPER: The one that starts Table 47.
- 19 MR. WILMOTH: (Counsel nods head.)
- A. Yes. Without checking that against the table,
- 21 I'll accept that.
- 22 Q. (BY MR. WILMOTH) Okay. And does the IMPLAN
- 23 model account, in any way, for the concept of proximate
- 24 cause that we discussed with Dr. Hamilton yesterday or
- 25 is that downstream, so to speak, of the other analysis?

- 1 A. Could you refresh my memory on the proximate
- 2 cause discussion?
- 3 Q. Yesterday we had a discussion about the
- 4 assumption that all of the direct damages were
- 5 proximately caused by Nebraska's failure to comply with
- 6 the compact, and I understand your piece of this report
- 7 is the secondary impact and my question is, does the
- 8 IMPLAN model, in any way, consider proximate causation?
- 9 A. Well, I think the way we're using the model,
- 10 we're suggesting that the proximate -- the loss of the
- 11 reduction of production and loss of income on farms is
- 12 the proximate cause of the reduction in income in farm
- 13 suppliers.
- 14 Q. Okay. So, there's a linkage between the direct
- 15 effects and the secondary effects?
- 16 A. Yes.
- 17 Q. And there's a causation element there?
- 18 A. Yes.
- 19 Q. Does the IMPLAN model or any of your related
- 20 analysis take into account any other factor that have
- 21 been a contributing cause, or does it assume that all
- 22 secondary impacts are caused by the direct impacts?
- 23 A. I think the -- I think the direct impact -- the
- 24 primary direct impact, the change on farm activity, is
- 25 what leads to all of the other changes that are

- 1 indicated by the IMPLAN model.
- 2 Q. So, let me give you a hypothetical and make
- 3 sure I understand how this relates. If I understood you
- 4 earlier, you said that these folks are price takers, not
- 5 price makers?
- 6 A. Yes.
- 7 Q. So, the price of corn, for example, is set at
- 8 least at a national scale, maybe an international scale,
- 9 correct?
- 10 A. Yes.
- 11 Q. So, to the extent the price of corn changes up
- 12 or down, I suppose, in any given year that the IMPLAN
- 13 model that it is being applied to, how does the IMPLAN
- 14 model take into account those influences or influences
- 15 similar to those, in terms of determining the
- 16 relationship between the direct and secondary effect?
- 17 MR. WILMOTH: That was a long question. If you
- 18 would like her to read it back, she will.
- 19 A. Well, I think I understand it. The -- the way
- 20 we conducted the secondary analysis here, we were
- 21 given -- I was given the change in farm input purchases.
- 22 So, if there was a change in the price of corn and it
- 23 had some affect on things, that would be reflected in
- 24 the farm input purchases.
- 25 Q. (BY MR. WILMOTH) And who provided you with

- 1 those -- this data?
- 2 A. They were provided in the -- that -- was it
- 3 Table 44? Those come from Professor Hamilton's work.
- 4 Q. Thank you.
- 5 MR. WILMOTH: All right. Let's take about
- 6 fifteen minutes, if that's okay.
- 7 MR. DRAPER: Yeah.
- 8 (Discussion held off the record.)
- 9 Q. (BY MR. WILMOTH) Dr. Robison, I just have a
- 10 couple of questions, which I think should be fairly
- 11 straight forward, then we'll conclude. The first
- 12 question is, when you applied the IMPLAN model, did you
- 13 apply it in a manner that I would call, "off the shelf,"
- 14 or did you make any modifications to either its
- 15 assumptions or its performance?
- 16 A. I would answer that off -- I'll say basically,
- 17 off the shelf. For transparency, we extracted the
- 18 multipliers and built them into the report, rather than
- 19 just feeding things in and, you know, writing down the
- 20 results.
- 21 Q. I'm sorry. I'm not sure I understand what you
- 22 mean by that. Are you just suggesting that the report
- 23 kind of contains the multipliers that were relied on?
- A. Yes. We used -- we used the IMPLAN model to
- 25 extract the relevant and appropriate multipliers and

- 1 then built those into the table so reviewers can
- 2 reproduce our work.
- 3 Q. Okay. But you don't change --
- 4 A. No.
- 5 Q. -- any of those multiplies?
- 6 A. No.
- 7 Q. Okay. And then what I would like to do is just
- 8 hand you -- or actually I'm not sure --
- 9 MR. WILMOTH: Do we have --
- 10 MR. DRAPER: I don't think we have....
- 11 MR. WILMOTH: I'll hand him this one for
- 12 identification.
- 13 Q. (BY MR. WILMOTH) I would like to just hand you
- 14 this report by Dr. Golden, et al., that we talked about
- 15 with Dr. Hamilton. Have you seen this report before?
- 16 A. No, I haven't.
- 17 Q. Are you aware of any of the work that was
- 18 conducted by this group of economists, for purposes of
- 19 the arbitration that preceded this action?
- 20 A. I've heard about it, but I haven't spent any
- 21 time with it.
- 22 Q. I would like to direct your attention to page
- 23 ten of this document.
- 24 A. (Witness complies.)
- 25 Q. There's a discussion of the Kansas IMPLAN

- 1 model. Do you see that?
- 2 A. Yes.
- 3 Q. Would you read that for just a moment and --
- 4 A. (Witness complies.)
- 5 Q. -- tell me if that looks similar to the
- 6 activities you performed?
- 7 A. Yes. And your question was?
- 8 Q. Is that description consistent with the
- 9 activities that you performed? And if you need to
- 10 review any other portions of this discussion, feel free
- 11 to do so.
- 12 A. It's -- it's not totally self-explanatory, it's
- 13 not totally documenting, their paragraph here, but from
- 14 my understanding it sounds like that would be the same
- 15 procedure that we followed.
- 16 Q. Okay. What I would like to ask you to do is
- 17 just take about five or ten minutes and read, if you
- 18 would, pages nine through twelve of this report.
- 19 MR. WILMOTH: I'd like to go off the record
- 20 while he does that.
- 21 (Discussion held off the record.)
- MR. WILMOTH: We will go back on the record
- 23 then.
- 24 Q. (BY MR. WILMOTH) Dr. Robison, I realize I've
- 25 asked you to read this at the table, but could you tell

- 1 me, based on that reading, if you see anything in that
- 2 analysis that differs from the analysis you performed?
- 3 A. It's not as clear as I would like it to be, but
- 4 it appears to me that -- using our language, it appears
- 5 to me that they did not include indirect secondary
- 6 impacts. It looks to me like -- and I could be reading
- 7 this wrong or it could be incompletely drafted, but it
- 8 looks to me they took the primary change in income and
- 9 then estimated the induced effect associated with that.
- 10 Q. And how does that differ from what you did?
- 11 A. We had the change in farm inputs along with the
- 12 change in on-farm income, and then we estimated the
- 13 secondary indirect effects associated with the input
- 14 purchases and the induced effect associated with all of
- 15 the income creation.
- 16 Q. And what was the consequence of doing that,
- 17 relative to what they did?
- 18 A. Well, if you were using -- if you were using
- 19 the same numbers, which we weren't, but if we did that
- 20 with our analysis, it would bring -- it would lower our
- 21 impacts.
- 22 Q. I think there is a relationship between the
- 23 amount of a direct effect or direct a impact and a
- 24 secondary impact or an indirect impact. In the Kansas
- 25 report that indirect impact was about fifty-nine percent

- 1 of the direct; is that right, in 2005?
- 2 A. Yeah. I have no familiar -- I'm not familiar
- 3 with the report.
- 4 Q. Okay.
- 5 A. I haven't studied it.
- 6 Q. Okay. And do you know what that relationship
- 7 is in your current work?
- 8 A. It could be easily calculated by tuning to
- 9 Table 48 and looking at the last column, and so we have
- 10 on-farm direct of round numbers, three million, and
- 11 secondary direct and indirect of two million, so the
- 12 ratio of the secondary to the primary, primary being the
- 13 on-farm, would be two dollars of secondary for every
- 14 three on-farm.
- 15 Q. Of direct?
- 16 A. Yes. But what -- and I should -- the language
- 17 is not as universally used as I wish it was. In this
- 18 report, we call it on farm direct, also primary. So,
- 19 yes.
- 20 Q. And is that a statistically stable number in
- 21 these analyses, or is there some standard deviation or
- 22 rate of error that would apply to that?
- 23 A. No. It's based on the -- it's based on the
- 24 numbers that were fed to the IMPLAN model.
- 25 Q. So, that could vary in any given case?

- 1 A. Well, these were -- these were driven by --
- 2 these were driven, again, by the change in farm inputs,
- 3 the change in primary farm income, and then those --
- 4 those led to the multipliers and the multipliers varied
- 5 by state and by industry. So we fed -- we fed the
- 6 change in farm inputs into the appropriate sectors,
- 7 applied the multipliers, and this is the result of all
- 8 those multiplier. This is the -- the two million in
- 9 secondary direct and indirect, the secondary direct was
- 10 given. That was given from Professor Hamilton's work.
- 11 Q. Uh-huh.
- 12 A. It was scaled down by the RPCs to factor out
- 13 goods that were imported, rather than produced in state,
- 14 and then fed through the -- through the model.
- 15 Q. So, there's not any standard ratio between
- 16 direct and indirect impacts?
- 17 A. I don't -- I don't believe so.
- 18 Q. Okay.
- 19 A. It varies by what it is you're looking at.
- 20 Q. And in terms, generally speaking, of a
- 21 secondary damages analysis, is there any kind of
- 22 standard deviation from those analyses or rate of error
- 23 that is known by the community?
- A. No. These type of models are -- they're not
- 25 stochastic models. They're simulation models, and

- 1 they're judged on the reasonableness of their
- 2 assumptions and the accuracy of the data that goes into
- 3 them. And as we described in our report, the theory and
- 4 the assumptions have roots in economic theory as deep as
- 5 any that go back to the eighteenth century, but by the
- 6 nature of the model, you can't come in and say this is
- 7 accurate within plus or minus five percent.
- 8 MR. WILMOTH: Okay. I think that's everything
- 9 we have.
- 10 MR. DRAPER: Okay. Pete?
- 11 MR. AMPE: I don't have anything.
- 12 MR. DRAPER: Let's take a short break. We'll
- 13 be right back.
- 14 (Discussion held off the record.)
- 15 EXHIBITS:
- 16 (Deposition Exhibit No. 4 marked for
- 17 identification.)
- 18 MR. DRAPER: Okay. Let's go back on the record
- 19 just long enough to say we have no questions.
- 20 MR. WILMOTH: All right. Thank you very much,
- 21 Doctor.
- 22 (Deposition concluded at 11:45 a.m. Witness
- 23 excused; signature reserved.)

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1		CERTIFICATE OF WITNESS
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15 16 17	correct co	hereby certify that this is a true and oppy of my testimony, together with any changes nade on this and any subsequent pages attached
18	Da 2012.	ted this day of ,
19		
20		MARVIN HENRY ROBISNO, Ph.D., DEPONENT
21 22	S day of	worn and Subscribed before me this , 2012.
23		
24 25	Re	OTARY PUBLIC FOR THE STATE OF WASHINGTON siding in , Washington

1	CERTIFICATE			
2	STATE OF WASHINGTON)			
3) SS. County of Whitman)			
4	L CLORIA I MODOLICALI CER RRR CR			
5	I, GLORIA J. McDOUGALL, CSR, RPR, CP, Freelance Court Reporter and Notary Public for the States of Idaho, Idaho CSR No. 234; Washington, Washington CSR No. 2353; residing in Clarkston,			
6				
7	Washington, do hereby certify:			
8	That I was duly authorized to and did report			
9	the deposition of MARVIN HENRY ROBISON, Ph.D., in the above-entitled cause;			
10	That the reading and signing of the			
11	That the reading and signing of the deposition by the witness have been expressly reserved.			
12	That the foregoing pages of this deposition			
13	That the foregoing pages of this deposition constitute a true and accurate transcript of my stenotype notes of the testimony of said witness.			
14	steriotype notes of the testimony of said withess.			
15	I further certify that I am not an attorney			
16	nor counsel of any of the parties; nor a relative or employee of any attorney or counsel connected with the			
17	action, nor financially interested in the action.			
18	· · · · · · · · · · · · · · · · · · ·			
19	hand and seal on this 13th day of February 2012.			
20				
21				
22	GLORIA J. McDOUGALL, CSR, RPR, CP Freelance Court Reporter			
23	Notary Public, States of Idaho and Washington			
24	Residing in Clarkston, Washington My Commissions Expire: 10/05/15			
25	ond 10/01/15			